AMENDMENTS TO THE CLAIMS

The below listing of claims replaces all prior versions of claims in the application.

1. (Previously Presented) An electron beam apparatus comprising:

an electron gun for directing a plurality of primary electron beams onto a sample;

objective lens for forming an electric field to accelerate a plurality of secondary electron beams emitted from said sample;

a separator for separating said plurality of secondary electron beams from a primary optical system and for directing said plurality of secondary electron beams into a secondary optical system for guiding to a detector outputting a detection signal of the secondary electron beams; and

a deflector for deflecting said secondary electron beams in said secondary optical system, wherein said deflector is controlled to deflect said plurality of secondary electron beams to prevent said plurality of secondary electron beams from moving on said detector in response to the scanning of said plurality of primary electron beams.

2. (Previously Presented) An electron beam apparatus according to claim 1, wherein said plurality of primary electron beams and said plurality of secondary electron beams are arranged in the vicinity of an optical axis.

3. (Currently Amended) An electron beam apparatus comprising:

an electron gun for directing a plurality of primary electron beams onto a sample;

objective lens for forming an electric field to accelerate a plurality of secondary electron beams emitted from the sample

a separator for separating the plurality of secondary electron beams from a primary optical system and for directing the plurality of secondary electron beams into a secondary optical system for guiding to detectors outputting a detection signal of the secondary electron beams;

a deflector for scanning the plurality of primary electron beams onto a sample;

a number of memories twice as much as a number of said detectors for storing digital signals generated by A/D converting the detection signals; and

change-over switches disposed in front of and at a back of said memories, wherein the detection signals from said detectors are input in one of said memories while the previous detection signals stored in another of said memories are transmitted into a CPU or an image processing unit.

4. (Previously Presented) An electron beam apparatus according to claim 1, further comprising a plate having a plurality of apertures corresponding to said plurality of secondary electron beams in front of said detector.

5. (Previously Presented) An electron beam apparatus comprising:

an electron gun having a cathode electrode, a Wehnelt electrode, and an anode electrode;

wherein said Wehnelt electrode comprises a first portion adjacent to said cathode electrode and a second portion separated from said first portion, said first portion being finely moveable in an x-direction, a y-direction, or a z-direction orthogonal to one another.

6. (Previously Presented) An electron beam apparatus according to claim 5,

wherein said electron gun comprises a multi-emitter machined as a cathode including a plurality of emitters integrated thereon, a heater for heating said multi-emitter, a supporter for fixing said multi-emitter and said heater at given positions, a Wehnelt electrode, and a fine adjustment mechanism for finely adjusting the position of a portion of said Wehnelt electrode which is adjacent to said multi-emitter,

wherein said fine adjustment mechanism is configured to be able to finely adjust the position of said portion of said Wehnelt electrode in at least one of an x-direction, a y-direction, and a θ-direction in a plane parallel to a plane which includes said multi-emitter, and a tilt direction in a plane perpendicular to said plane.

7. (Original) An electron beam apparatus according to claim 6, wherein said fine adjustment mechanism in the θ-direction or tilt direction is disposed at a z-position substantially identical to said emitter.

8. (Original) An electron beam apparatus according to claim 6, wherein said portion of said Wehnelt electrode has a plurality of small holes corresponding to said plurality of emitters, and has a thickness of 200 μm or less only in the vicinity of said holes.

9. (Previously Presented) An electron beam apparatus according to claim 5, wherein said electron beam apparatus forms a plurality of narrowed electron beams from emissions of said electron gun, scans a sample surface with said electron beams and detects secondary electron beams formed of secondary electrons emitted from scanned positions on said sample surface using a plurality of detectors.

10. (Previously Presented) An electron beam apparatus, comprising:

an electron gun for directing a plurality of primary electron beams onto a sample;

a condenser lens for converging the plurality of primary electron beams emitted from said electron gun;

a multi-aperture plate having a plurality of apertures;

a demagnification lens for demagnifying the plurality of primary electron beams;

an objective lens for forming an electric field to accelerate a plurality of secondary electron beams emitted from said sample;

a director for directing said plurality of secondary electron beams into a secondary optical system for guiding to a detector outputting a detection signal of the secondary electron beams; and

a beam separator disposed between the objective lens and a former stage lens in a primary optical system for separating said secondary electron beams, wherein said condenser lens forms a crossover image at a point between said multi-aperture plate and said demagnification lens.

11. – 12. (Cancelled)